



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re applicat)				
	Gregory N. Nordgren	,)			
For:	CATHETER WITH VALVED DISTAL TIP)	Art Unit 3763		
Serial No.:	09/542,503)	3703 T		
Filing Date:	April 3, 2000)	3700	JAN	REC
Examiner:	Anh Tuan Nguyen)	O MA		CEIV
TRA	NSMITTAL OF WORK MEMORANDA REQUESTED	BY E		2001	G

Commissioner for Patents United States Patent and Trademark Office Washington, D.C. 20231

Sir:

The undersigned wishes to thank the Examiner for the time and attention given thereby to the above-referenced application in an interview conducted at the request of the Examiner in the United States Patent and Trademark Office on January 22, 2001. The matters discussed in the interview are set forth in an Interview Summary identified in the file wrapper as Paper No. 6 that was prepared by the Examiner and provided to the undersigned at the conclusion of the interview.

As a result of comments made by the Examiner during the interview, it became apparent that providing copies of certain organizing memoranda relative to the several embodiments of the technology disclosed in the above-captioned application could prove useful to the Examiner

immediately and throughout the course of prosecution. The offer to provide such memoranda was tendered in the interview and accepted by the Examiner.

Accordingly, transmitted herewith are copies of the following:

- Memorandum dated January 23, 2001, presenting a typology of the disclosed embodiments; and
- 2. Memorandum dated January 24, 2001, correlating the embodiments in the above-listed Memorandum to the figures of the above-captioned application.

If the undersigned can be of further assistance, the Examiner is encouraged to initiate telephone contact therewith at either of the numbers listed at the signature line below.

DATED this 24 day of January, 2001.

Respectfully submitted,

KENT S BURNINGHAM Attorney for Applicant Registration No. 30,453

TRASKBRITT

230 South 500 East, Suite 300 Salt Lake City, Utah 84102 USA

Telephone: (801) 532-1922 Toll Free: (800) 900-2001 Facsimile: (801) 531-9168

KSB/bv N:\2408\3775us\trans.wpd

Docket: 2408.3775US

PATENT APPLICATION Docket: 2408.3775US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re applicat)	
	Gregory N. Nordgren)
For:	CATHETER WITH VALVED DISTAL TIP) Art Unit
Serial No.:	09/542,503) 3763
Filing Date:	April 3, 2000)
Examiner:	Anh Tuan Nguyen)

COMBINED CERTIFICATE OF FILING BY FACSIMILE TRANSMISSION AND OF MAILING BY "EXPRESS MAIL"

"Express Mail" Mailing Label No.: EL 740534033 US

Date of Deposit: January 24, 2001

Commissioner for Patents United States Patent and Trademark Office Washington, D.C. 20231

Sir:

Inissioner for Patents
States Patent and Trademark Office
Ington, D.C. 20231

I hereby certify that this paper, the facsimile cover sheet that precedes this paper, and the document(s) listed below as "Transmitted" are being filed in the United States Patent and Trademark Office on the date shown below pursuant to 37 C.F.R. § 1.6(d) by facsimile transmission, both (1) to Group Art Unit 3763 at (703) 308-3590, and (2) to Examiner Anh Tuau Nguyen at (703) 306-4520.

The originals of the documents listed below as "Transmitted" are also being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. § 1.10 on the date indicated above in an envelope addressed to Commissioner for Patents, United States Patent and Trademark Office, Washington, D.C. 20231.

DATED this 24th day of January, 2001

Respectfully submitted,

KENT & BURNINGHAM Attorney for Applicant Registration No. 30,453

TRASKBRITT

230 South 500 East, Suite 300 Salt Lake City, Utah 84102 USA

Telephone: (801) 532-1922 Toll Free: (800) 900-2001 Facsimile: (801) 531-9168

KSB:bv N:\2408\3775us\cert by fax.wpd

Transmitted: Transmittal for Work Memoranda Requested by Examiner (2 pages)

Memorandum of 1/23/01 (3 pages) Memorandum of 1/24/01 (1 page)

Postcard

MEMORANDUM

TO:

File No. 2408.3775US

FROM:

Kent S. Burningham

DATE:

January 24, 2001

SUBJECT:

USSN 09/542,503 - Correlation of Figures to Embodiments



RECEIVED

JAN 29 2001

TC 3700 MAIL ROOM

The table below correlates the figures of United States Patent Application Serial No. 09/542,503 with the embodiments of the Subject Technology identified in the Memorandum of January 23, 2001

71.61.17.70		EMBODIMENTS																		
FIGURES	Al	A2	А3	A4	A 5	A6	A7	A8	A9	A10	Bl	B2	ВЗ	В4	В5	В6	В7	В8	Cl	C2
1-12	x																			
13-15		х																		
16-18									х											
19			х									<u> </u>	ļ							
20-26C				х																
27-28	ļ				х															
29							x*	х												
30-31						х	x*													
32									х	х										
33-37	<u> </u>	ļ				ļ	ļ				х						ļ			
38	 										х					х				
39-41												х								
42-44	<u> </u>			<u> </u>		ļ	<u> </u>		<u> </u>				х						ļ	
45-47	_													х					ļ	
48	_									<u> </u>				х		х	ļ			
49-50															х					
51														<u></u>	х	х				
52-53														٠			х	<u> </u>		
54-58																		x		
59-60																			х	
61-62																				х

^{*}Embodiment A7, though not literally depicted in any one figure, is a composite of features shown in Figures 29-31.

<u>MEMORANDUM</u>

TO:

File No. 2408.3775US

FROM:

Kent S. Burningham

DATE:

January 23, 2001

SUBJECT:

USSN 09/542,503 -- Disclosed Embodiments

RECEIVED

JAN 29 2001

TC 3700 MAIL ROOM

The catheter tip slit valve technology disclosed in United States Patent Application Serial 09/542,503 (hereinafter "the Subject Technology") finds tangible expression in a plurality of disclosed embodiments. These embodiments have been arranged into a typology and assigned embodiment identification designations.

The structure and the contents of the typology for the Subject Technology is set forth below, without regard to whether each corresponding embodiment structure is disclosed in the patent application in the context of a close-ended conduit comprising a catheter tube and a terminal end wall, or in the context of a hollow distal extension for a catheter tube with a terminal end wall.

A. Single Lumen Catheter Embodiments:

Embodiment A1:

a) plane of end wall is perpendicular to axis of catheter, and

b) end wall is flat.

Embodiment A2:

a) plane of end wall is perpendicular to axis of catheter, and

b) end wall is convex.

Embodiment A3:

a) plane of end wall is perpendicular to axis of catheter,

b) end wall is convex, and

c) tubing wall is thinnest at end wall.

Embodiment A4:

a) plane of end wall is perpendicular to axis of catheter,

b) end wall is flat, and

c) tubing wall is thinnest at end wall.

Embodiment A5:

a) plane of end wall is not perpendicular to axis of catheter, and

b) end wall is flat.

Embodiment A6:

a) plane of end wall is not perpendicular to axis of catheter, and

b) end wall is convex.

(continued)

A. Single Lumen Catheter Embodiments (continued)

Embodiment A7:

- a) plane of end wall is <u>not</u> perpendicular to axis of catheter,
- b) end wall is convex, and
- c) tubing wall is thinnest at end wall.

Embodiment A8:

- a) plane of end wall is <u>not</u> perpendicular to axis of catheter,
- b) end wall is flat, and
- c) tubing wall is thinnest at end wall.

Embodiment A9:

- a) plane of end wall is perpendicular to axis of catheter,
- b) end wall is semispherical, and
- c) interior of end wall is conical.

Embodiment A10:

Any of embodiments A1-A9 having a valve in the end wall comprised of a plurality of intersecting slits that separate three or more moveable valve walls.

B. Dual (semicircular) Lumen Catheter Embodiments:

Embodiment B1:

- a) single end wall,
- b) plane of end wall is perpendicular to axis of catheter, and
- c) end wall is flat.

Embodiment B2:

- a) single end wall,
- b) plane of end wall is perpendicular to axis of catheter,
- c) end wall is flat, and
- d) tubing wall is thinnest at end wall.

Embodiment B3:

- a) single end wall,
- b) plane of end wall not perpendicular to axis of catheter, and
- c) end wall is flat.

Embodiment B4:

- a) single end wall,
- b) plane of end wall is not perpendicular to catheter axis,
- c) end wall is flat, and
- d) tubing wall is thinnest at end wall.

Embodiment B5: (Peaked Roof)

- a) first and second end walls terminate respective lumens,
- b) planes of each respective end wall intersect septum in a common line that is perpendicular to axis of catheter,
- c) planes of each of first and second end walls are <u>not</u> perpendicular to axis of catheter, and
- d) each end wall is flat.

(continued)

B. Dual (semicircular) Lumen Catheter Embodiments (continued)

Embodiment B6: Any of embodiments B1-B5 having a valve in the end wall rotated out of an orientation that is parallel to the septum.

Embodiment B7: (Mansard Roof)

- a) first and second end walls terminate respective lumens,
- b) planes of each respective end wall intersect septum in a line perpendicular to axis of catheter,
- c) plane of first end wall is perpendicular to axis of catheter, but plane of second wall is <u>not</u> perpendicular to axis of catheter, and
- d) each end wall is flat.

Embodiment B8: (Staggered Tip)

- a) first and second end walls terminate respective lumens,
- b) planes of each respective end wall intersect septum in distinct parallel lines that are perpendicular to axis of catheter, and
- c) each end wall is flat.
- C. Triple Lumen Catheter Embodiments:

Embodiment C1: a) circular lumen surrounded by a pair of C-shaped lumens,

b) single end wall closes C-shaped lumens only,

c) plane of end wall is perpendicular to axis of catheter, and

d) end wall is flat.

Embodiment C2:

- a) semicircular lumen and a pair of quarter circle lumens,
- b) first end wall terminates semicircular lumen, but a single second end wall terminates both quarter circle lumens,
- c) planes of each respective end wall intersect septum in a common line that is perpendicular to axis of catheter,
- d) first end wall is perpendicular to axis of catheter, but second end wall is <u>not</u> perpendicular to axis of catheter, and
- d) each wall is flat.

N:\2408\3775us\memo of 012301.wpd